

General Chemistry Result Summary Cover Sheet

Client: Foster Wheeler

Project: Roxanna Marsh

SDG: 920866C

Case Narrative

Client FOSTER WHEELER
Project Name ROXANNA MARSH
Project Number 1980.0208.0100
SDG 920866C
Fraction WETCHEM

Lab Number	Sample ID	Collect Date	Rec Date	Matrix
920866-053	FW-RM-16-CS-0.7-2.0	3/21/2002	3/22/2002	SOIL
920866-054	FW-RM-16-CS-2.0-3.5	3/21/2002	3/22/2002	SOIL
920866-056	FW-RM-06-CS-0.7-2.3	3/21/2002	3/22/2002	SOIL
920866-057	FW-RM-06-CS-2.8-4.7	3/21/2002	3/22/2002	SOIL
920866-058	FW-RM-11-CS-0.7-2.4	3/21/2002	3/22/2002	SOIL
920866-059	FW-RM-11-CS-2.4-4.2	3/21/2002	3/22/2002	SOIL
920866-061	FW-RM-14-CS-0.7-2.0	3/21/2002	3/22/2002	SOIL
920866-062	FW-RM-14-CS-2.0-3.8	3/21/2002	3/22/2002	SOIL
920866-073	FW-RM-16-CS-0.7-2.0MS	3/21/2002	3/22/2002	SOIL
920866-074	FW-RM-16-CS-0.7-2.0MSD	3/21/2002	3/22/2002	SOIL
920866-075	MB4920866			SOIL
920866-076	MB4920866LCS			SOIL
920866-077	MB4920866LCSD			SOIL

EnChem Laboratories

COVER PAGE - GENERAL CHEMISTRY ANALYSIS DATA PACKAGE

SDG No.: 920866C

Contract: ROXANNA MARSH

Lab Sample ID	Client Sample ID	QC Description
920866-053	FW-RM-16-CS-0.7-2.0	
920866-073	FW-RM-16-CS-0.7-2.0MS	Matrix Spike
920866-074	FW-RM-16-CS-0.7-2.0MSD	Matrix Spike Duplicate
920866-054	FW-RM-16-CS-2.0-3.5	
920866-056	FW-RM-06-CS-0.7-2.3	
920866-057	FW-RM-06-CS-2.8-4.7	
920866-058	FW-RM-11-CS-0.7-2.4	
920866-059	FW-RM-11-CS-2.4-4.2	
920866-061	FW-RM-14-CS-0.7-2.0	
920866-062	FW-RM-14-CS-2.0-3.8	
920866-075	MB4920866	Method Blank
920866-076	MB4920866LCS	Laboratory Control Sample
920866-077	MB4920866LCSD	Laboratory Control Sample D

Comments:

signature:

mjh

Name

Michael J Helmann

Date:

1/16/02

Title:

Wet Chemistry Group Leader

EN CHEM, INC
CASE NARRATIVE - GENERAL CHEMISTRY ANALYSIS

Lab Report Number (SDG): 920866C

Client: Foster Wheeler

Project Name: Roxanna Marsh

Project Number: 1980.0208.0100

1. RECEIPT

Samples were received on ice.

2. HOLDING TIMES

- A. **Sample Preparation:** All method holding times were met.
- B. **Sample Analysis:** All method holding times were met.

3. METHOD

Preparation: EPA DRAFT, SW846 9060, 9071A

Analysis: EPA DRAFT, SW846 9060, 9071A

4. PREPARATION

Sample preparation proceeded normally.

5. ANALYSIS

- A. **Calibration:**
 - 1. **Initial verification:** All method acceptance criteria were met.
 - 2. **Continuing verification:** All method acceptance criteria were met.
- B. **Blanks:**
 - 1. **Initial calibration:** All method acceptance criteria were met.
 - 2. **Continuing calibration:** All method acceptance criteria were met.
 - 3. **Method:** All in-house acceptance criteria were met.
- C. **Spikes:**
 - 1. **Lab Control Spike (LCS):** All in-house accuracy criteria were met.
 - 2. **Matrix Spike / Duplicate (MS/MSD):** Sample FW-RM-16-CS-0.7-2.0 was designated as the MS/MSD for Total Organic Carbon, Acid Volatile Sulfide, and Oil and Grease. All in-house accuracy and precision criteria were met with the following exception. The recoveries for the MS and MSD for Acid Volatile Sulfide were low. A post spike was performed and met in-house criteria. The parent sample results have been flagged with a "N" data qualifier.
- D. **Sample Duplicates:** Duplicate sample analysis for Acid Volatile Sulfide, Oil and Grease, and Total Organic Carbon was performed on the Laboratory Control Spike. The in-house precision criteria were met.
- E. **Samples:** Sample analyses proceeded normally.
- F. **Dilutions:**

Sample ID	Reason for dilution
FW-RM-16-CS-0.7-2.0	Diluted to bring TOC into calibration
FW-RM-16-CS-2.0-3.5	Diluted to bring TOC into calibration
FW-RM-06-CS-0.7-2.3	Diluted to bring TOC into calibration
FW-RM-11-CS-0.7-2.4	Diluted to bring TOC into calibration
FW-RM-11-CS-2.4-4.2	Diluted to bring TOC into calibration
FW-RM-14-CS-0.7-2.0	Diluted to bring TOC and AVS into calibration
FW-RM-14-CS-2.0-3.8	Diluted to bring TOC into calibration
- G. **Reanalysis:** None required for this SDG.
- H. **Comments:** None.

I certify that this data package is in compliance with the terms and conditions agreed to by En Chem, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: mjh Date: 4/16/02
Name: Michael J. Helmann Position: Wet Chemistry Group Leader

Inorganic Data Qualifiers

- A Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
- B The analyte has been detected between the method detection limit and the reporting limit.
- C Elevated detection limit due to matrix effects.
- E Estimated concentration due to matrix interferences. During the metals analysis using the inductively coupled plasma (ICP), the serial dilution failed to meet the established control limits of 0-10% and the sample concentration is greater than 50 times the IDL (100 times the IDL for analysis done on the ICP-MS). The result was flagged with the E qualifier to indicate that a physical interference was observed.
- F Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
- H(n) Preservation or analysis performed "n" days past holding time (See Sample Narrative).
- K Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
- L Elevated detection limit due to low sample volume.
- N Spiked sample recovery not within control limits.
- Q The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
- U The analyte was not detected above the reporting limit.
- X See sample narrative.
- & Laboratory Control Spike recovery not within control limits.
- *
- Duplicate analyses not within control limits.
- SUB1 Assay was subcontracted to an approved lab.
- SUB2 Assay was subcontracted to En Chem Green Bay WI Cert. #405132750.
- 1 Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
- 2 Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria. (See Sample Narrative).
- 3 BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
- 4 BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 5 BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 6 BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
- 7 BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

(Please Print Legibly)

Company Name: Foster-Mess Inc.

Branch or Location: Denville

Project Contact: Jeffrey J. Mess

Telephone: 703-970-3579

Project Number: 1980-2203-0102

Project Name: Lexenox Biosci

Project State: Tel Aviv

Sampled By (Print): B. h Feldman

Data Package Options
(please circle if requested)

Results Only

EnChem Level III (Subject to Surcharge)
EnChem Level IV (Subject to Surcharge)

EN CHEM
INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-499-2438
FAX 920-469-8827

525 Science Drive
Madison, WI 53711
608-232-3500
FAX: 608-233-0502

CHAIN OF CUSTODY

78316

Rush Turnaround Time Requested (TAT) - Prelim

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (circle):

Phone

Fax

E-Mail

Phone #:

Fax #:

E-Mail Address:

A=None

B=HCl

C=M2SO4

D=HNO3

E=H2O2

F=MeOH

G=NaOH

H= Sodium Bisulfate Solution

I=Other

FILTERED? (YES/NO)

PRESERVATION (CODE)

1 4 A

5 15 V

10 14 V

15 13 V

20 12 V

25 11 V

30 10 V

35 9 V

40 8 V

45 7 V

50 6 V

55 5 V

60 4 V

65 3 V

70 2 V

75 1 V

80 0 V

85 0 V

90 0 V

95 0 V

100 0 V

110 0 V

120 0 V

130 0 V

140 0 V

150 0 V

160 0 V

170 0 V

180 0 V

190 0 V

200 0 V

210 0 V

220 0 V

230 0 V

240 0 V

250 0 V

260 0 V

270 0 V

280 0 V

290 0 V

300 0 V

310 0 V

320 0 V

330 0 V

340 0 V

350 0 V

360 0 V

370 0 V

380 0 V

390 0 V

400 0 V

410 0 V

420 0 V

430 0 V

440 0 V

450 0 V

460 0 V

470 0 V

480 0 V

490 0 V

500 0 V

510 0 V

520 0 V

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2130 0 V

2150 0 V

2170 0 V

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2990 0 V

3010 0 V

3030 0 V

3050 0 V

3070 0 V

3090 0 V

3110 0 V

3130 0 V

3150 0 V

3170 0 V

3190 0 V

3210 0 V

3230 0 V

3250 0 V

3270 0 V

3290 0 V

3310 0 V

(Please Print Legibly)

Company Name: Foster White Inc

Branch or Location: Denver

Project Contact: Paul Mess

Telephone: 303 - 960 - 3519

Project Number: 1930.0213.0102

Project Name: Fox Creek Mine

Project State: Tr. Chanc.

Sampled By (Print): Bob Goldsmith

Data Package Options

(please circle if requested)

Results Only

EnChem Level III (Subject to Surcharge)
EnChem Level IV (Subject to Surcharge)

LABORATORY ID
(Lab Use Only)

FIELD ID
FN-RL11-012

COLLECTION
DATE

TIME

MATRIX

REMARKS

Q4

CHAIN OF CUSTODY

78323

A=None B=MCL C=H2SO4
H=Sodium Bisulfate Solution

FILTERED? (YES/NO)

PRESERVATION (CODE)*

D=HNO3 E=Other
F=Methanol G=NaOH

*Preservation Codes

U=Water S=Soil

A=Air C=Charcoal

B=Biotite D=Sludge

E=Glass F=Plastic

G=Wood H=Leather

I=Leather J=Clothing

K=Plastic L=Wood

M=Leather N=Plastic

O=Wood P=Plastic

Q=Plastic R=Wood

S=Plastic T=Wood

U=Plastic V=Wood

W=Plastic X=Wood

Y=Plastic Z=Wood

AA=Plastic BB=Wood

CC=Plastic DD=Wood

EE=Plastic FF=Wood

GG=Plastic HH=Wood

II=Plastic JJ=Wood

KK=Plastic LL=Wood

MM=Plastic NN=Wood

OO=Plastic PP=Wood

QQ=Plastic RR=Wood

TT=Plastic UU=Wood

UU=Plastic VV=Wood

WW=Plastic XX=Wood

YY=Plastic ZZ=Wood

AA=Plastic BB=Wood

CC=Plastic DD=Wood

EE=Plastic FF=Wood

GG=Plastic HH=Wood

II=Plastic JJ=Wood

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KK=Plastic LL=Wood

(Please Print Legibly)
Company Name: Foster Wheeler

Branch or Location: Denver

Project Contact: Greg M. S.

Telephone: 303-980-3519

CHAIN OF CUSTODY

78324

Project Number: 1960-323-0100

Project Name: Oxane Marsh

Project State: Indiana

Sampled By (Print): Bob Feldman, S.I.

Data Package Options

(please circle if requested)
Results Only
EnChem Level III (Subject to Surcharge)
EnChem Level IV (Subject to Surcharge)

Preservation Codes

A=None
B=HCl
C=H2SO4
D=HN3
E=EnCore
F=Methanol
G=Naph

H = Sodium Bisulfate Solution
I=Other

FILTERED? (YES/NO)

PRESERVATION (CODE)

A-A

<p

(Please Print Legibly)

Company Name: Foster Chemical

Branch or Location: Dunn

Project Contact: Pam Glass

Telephone: 303-980-3519

EN CHEM
INC.1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-469-2436
FAX 920-469-8827625 Science Drive
Madison, WI 53711
608-232-0300
FAX: 608-233-0502

CHAIN OF CUSTODY

78325

Project Number: 19801-0208.01/00

Project Name: Rexann Marsh

Project State: Indiana

Sampled By (Print): Bob Feldpausch

A=None

B=HCl

C=H2SO4

D=HNO3

E=Other

H = Sodium Bisulfate Solution

FILTERED? (YES/NO)

I=EnCore

F=Methanol

G=NaOH

H=Water

S=Soil

A=Air

C=Charcoal

B=Biotota

S=Sludge

PRESERVATION (CODE)

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION	MATRIX
		DATE	TIME
02086-019	Fw-211-21-CS-3.6.5.6	3-21	1402
020	Fw-211-01-CS-3.6.5.6	3-21	1402
021	Fw-211-21-CS-7.0-20	3-21	1402
022	Fw-201-01-CS-7.0-20	3-21	1402

(please circle if requested)

Results Only

EnChem Level III (Subject to Surcharge)
EnChem Level IV (Subject to Surcharge)

Rush Turnaround Time Requested (TAT) - Prelim (Push TAT subject to approval/surcharge)		Relinquished By:	Date/Time:	Received By:	Date/Time:	En Chem Project No.
Date Needed:			3-21-02	16:55	fed Ex	920866
Transmit Prelim Rush Results by (circle):		Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt Temp,
Phone Fax E-Mail		fed Ex	3/22/02	1030	Kyle Chesser	3/22/02
Phone #:		Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH (W/M/Mole)
Fax #:						32321413 RJS
E-Mail Address:		Relinquished By:	Date/Time:	Received By:	Date/Time:	Cooler Custody Seal
Samples on HOLD are subject to special pricing and release of liability		Relinquished By:	Date/Time:	Received By:	Date/Time:	Present / Not Present
						Intact / Not Intact

(Please Print Legibly)

Company Name: Fischer-Wheeler

Branch or Location: Denton

Project Contact: Sam Moss

Telephone: 813-986-3519

Project Number: 1980-0225-C-01

Project Name: Rogers, Marcella

Project State: T-Initial

Sampled By (Print): Bob Feldpausch

Data Package Options

(please circle if requested)

Results Only

EnChem Level III (Subject to Surcharge)

EnChem Level IV (Subject to Surcharge)

**LABORATORY ID
(Lab Use Only)**

FIELD ID

COLLECTION

MATRIX

DATE

TIME

**REGULATORY
PROGRAM**

**Matrix
Codes**

W=Water

S=Sediment

A=Air

C=Charcoal

B=Bioassay

S=Sludge

U=Unknown

ST=Soil

SW=Soil Water

SP=Soil Slurry

DP=Drinking Water

CP=Consumer Product

CA=Consumer Air

CE=Consumer Equipment

CR=Consumer Residue

CHAIN OF CUSTODY

78317

Page 2 of 2

P.O. # Quote #
Mail Report To: PSIN-ASS

Company: FWE/ENCS
Address: Lakehurst, NJ

Invoice To: Gerry Brown
Company: FWE/ENCS

Address: Be The Hill, NJ

Mail Invoice To:

A=None B=HCl C=H2SO4
H = Sodium Bisulfate Solution I = Other

*Preservation Codes
D=HN03 E=Encore

F=Methanol G=NaOH

H = FILTERED? (YES/NO)

PRESERVATION (CODE):

ANALYSES REQUESTED

Rush Turnaround Time Requested (TAT) - Prelim

(Rush TAT subject to approval/surcharge)

Date Needed:

Transmit Prelim Rush Results by (circle):

Phone Fax

E-Mail

Phone #:

Fax #:

E-Mail Address:

Samples on HOLD are subject to special pricing and release of liability

Reinquished By: J. L. L. Date/Time: 3-7-12 12:36 Received By: FedEx

Reinquished By: FedEx Date/Time: 3/22/02 1030 Received By: Ryc Chem

Reinquished By: Date/Time: Received By:

Reinquished By: Date/Time: Received By:

(Please Print Legibly)
 Company Name: EN CHEM
 Branch or Location: Denton
 Project Contact: Pam Moss
 Telephone: 303-980-3519

EN CHEM

1241 Bellevue St., Suite 9
 Green Bay, WI 54302
 920-469-2436
 FAX 920-469-8627

526 Science Drive
 Madison, WI 53711
 608-232-3300
 FAX: 608-232-0602

CHAIN OF CUSTODY

78318

A=None B=HCl C=H2SO4 D=HNO3 E=EnCore
 H = Sodium Bisulfate Solution F=Methanol G=NaOH
 FILTERED? (YES/NO)

PRESERVATION (CODE):

Sampled By (Print): Bob Schausch
 Data Package Options
 (please circle if requested)
 Results Only

EnChem Level III (Subject to Surcharge)
 EnChem Level IV (Subject to Surcharge)

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	MATRIX TIME	Regulatory Program	Matrix Codes	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
920866-047	Fw-Am-19-cs-2-047	3-21	0810	S	I Q 1		Y
048	Fw-Am-19-cs-4-035-9	3-21	0850	S	I 2 1		Y
049	Fw-Am-19-cs-0-7-20	3-21	0850	S	I 2 1		Y Archive
050	Fw-Am-18-cs-0-7-2-3	3-21	0820	S	I 2 1		Y
051	Fw-Am-18-cs-2-3-9-3	3-21	0820	S	I 2 1		Y
052	Fw-Am-18-cs-9-3-2-3	3-21	0820	S	I 2 1		Y Archive
053	Fw-Am-16-cs-0-7-2-6	3-21	1145	S	I 2 1		Y
054	Fw-Am-16-cs-2-0-3-5	3-21	1145	S	I 2 1		Y
055	Fw-Am-16-cs-5-3-6-5	3-21	1145	S	I 2 1		Y Archive

Rush Turnaround Time Requested (TAT) - Prelim		Relinquished By:	Date/Time:	Received By:	Date/Time:	En Chem Project No.
(Push TAT subject to approval/surcharge)		<i>[Signature]</i>	3-21-02 17:05	Fed Ex		920866
Date Needed:		Received By:	Date/Time:	Received By:	Date/Time:	Sample Receipt Term.
Transmit Prelim Rush Results by (circle):		<i>Fed Ex</i>	3/21/02 1030	Kyle	3/23/02 1030	Pushed
Phone #:	Fax	Received By:	Date/Time:	Received By:	Date/Time:	Sample Retain H
Fax #:	E-Mail	Received By:	Date/Time:	Received By:	Date/Time:	Wa/Mailish
E-Mail Address:		Relinquished By:	Date/Time:	Received By:	Date/Time:	Cooler Custody Seal
Samples on HOLD are subject to special pricing and release of liability		Relinquished By:	Date/Time:	Received By:	Date/Time:	Present / Not Present
						Intact / Not Intact

(Please Print Legibly)
 Company Name: Festus Chem
 Branch or Location: Denton
 Project Contact: Paul Mess



EN
CHEM
INC.

1241 Bellevue St., Suite 9
 Green Bay, WI 54302
 920-469-2438
 FAX 920-469-8927

525 Science Drive
 Madison, WI 53711
 608-232-3300
 FAX 608-233-0802

CHAIN OF CUSTODY

78319

A=None B=HCl C=H2SO4 D=IND3 E=Encore
 H=Sodium Bisulfate Solution I=Other

FILTERED? (YES/NO)

PRESERVATION (CODE):

Data Package Options (please circle if requested)		Regulatory Program		Matrix Codes		Preservation Codes		PO # _____ Quote # _____		Mail Report To: <u>Paul Mess</u>		Company: <u>Festus Chem</u>		Address: <u>Lakeview, CO</u>			
Results Only		UST RCRA SDWA NPDES CERCLA		W=Water S=Soil A=Air C=Charcoal B=Biofa SI=Sludge		I=H2SO4 E=Encore D=IND3 H=Sodium Bisulfate Solution A=None B=HCl											
EnChem Level III (Subject to Surcharge)																	
EnChem Level IV (Subject to Surcharge)																	
Sampled By (Print): <u>Bob Feldman et al.</u>	Field ID:	COLLECTION	DATE	MATRIX	MATRIX	LAB COMMENTS (Lab Use Only)		CLIENT COMMENTS		TOTAL # OF BOTTLES SENT		TOTAL # OF LAKES REQUESTED		TOTAL # OF LAKES REQUEUED			
Project Number: <u>1980-02-05-0100</u>																	
Project Name: <u>Roxanna Waters</u>																	
Project State: <u>Tulsa, OK</u>																	
Rush Turnaround Time Requested (TAT) - Prelim (Rush TAT subject to approval/surcharge)		Relinquished By: <u>John</u>		Date/Time: <u>5-11-02 1700</u>		Received By: <u>FedEx</u>		Date/Time: <u>5-11-02 1700</u>		Received By: <u>John</u>		Date/Time: <u>5-11-02 1700</u>		En Chem Project No: <u>926866</u>			
Date Needed: _____		Relinquished By: <u>FedEx</u>		Date/Time: <u>5-12-02 1030</u>		Received By: <u>John</u>		Date/Time: <u>5-12-02 1030</u>		Received By: <u>John</u>		Date/Time: <u>5-12-02 1030</u>		Sample Receipt Temp: <u>37.343</u>			
Transmit Prelim Rush Results by (circle): <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> E-Mail		Relinquished By: _____		Date/Time: _____		Received By: _____		Date/Time: _____		Received By: _____		Date/Time: _____		Sample Receipt pH (W/W/Media): <u>OK</u>			
Phone #: _____ Fax #: _____ E-Mail Address: _____		Relinquished By: _____		Date/Time: _____		Received By: _____		Date/Time: _____		Received By: _____		Date/Time: _____		Cooler Custody Seal <input checked="" type="checkbox"/> Present / Not Present <input checked="" type="checkbox"/> Intact / Not Intact			
Samples on HOLD are subject to special pricing and release of liability		Relinquished By: _____		Date/Time: _____		Received By: _____		Date/Time: _____		Received By: _____		Date/Time: _____					

En Chem, Inc. Cooler Receipt Log

Batch No. 920866

Project Name or ID Roxanna Marsh

No. of Coolers: 7 Temps: 3, 2, 3, 3, 1, 4, 3 °C

A. Receipt Phase: Date cooler was opened: 3/12/02

By: RJC

- 1: Were samples received on ice? (Must be ≤ 5 C) YES NO ²
- 2: Was there a Temperature Blank? YES NO
- 3: Were custody seals present and intact? (Record on COC) YES NO
- 4: Are COC documents present? YES NO ²
- 5: Does this Project require quick turn around analysis? YES NO
- 6: Is there any sub-work? YES NO
- 7: Are there any short hold time tests? YES NO
- 8: Are any samples nearing expiration of hold-time? (Within 2 days) YES NO Contacted by/Who _____
- 9: Do any samples need to be Filtered or Preserved in the lab? YES NO Contacted by/Who _____

B. Check-in Phase: Date samples were Checked-in: 3/12/02

By: RJC

- 1: Were all sample containers listed on the COC received and intact? YES NO ² broken lids - see NC NA RJC
- 2: Sign the COC as received by En Chem. Completed YES NO
- 3: Do sample labels match the COC? YES NO ²
- 4: Check sample pH of preserved samples. (Not VOCs) Completed YES NO NA
- 5: Do samples have correct chemical preservation? YES NO ² NA
- 6: Are dissolved parameters field filtered? YES NO ² NA
- 7: Are sample volumes adequate for tests requested? YES NO ²
- 8: Are VOC samples free of bubbles >6mm YES NO ² NA
- 9: Enter samples into logbook. Completed YES NO
- 10: Place laboratory sample number on all containers and COC. Completed YES NO
- 11: Complete Laboratory Tracking Sheet (LTS). Completed YES NO NA
- 12: Start Nonconformance form. YES NO NA
- 13: Initiate Subcontracting procedure. Completed YES NO NA
- 14: Check laboratory sample number on all containers and COC. YES NO NA

Short Hold-time tests:

48 Hours or less	7 days	Footnotes
Coliform (6 hrs)	Flashpoint	1 Notify proper lab group immediately.
Hexavalent Chromium (24 Hrs)	TSS	2 Complete nonconformance memo.
BOD	Total Solids	
Nitrite or Nitrate	TDS	
Low Level Mercury	Sulfide	
Ortho Phosphorus	Free Liquids	
Turbidity	Total Volatile Solids	
Surfactants	Aqueous Extractable Organics- ALL	
Sulfite	Unpreserved VOC's	
En Core Preservation	Ash	
Color		

EnChem Laboratories**COVER PAGE - GENERAL CHEMISTRY ANALYSIS DATA PACKAGE**

SDG No.: 920866C Contract: ROXANNA MARSH

Lab Sample ID	Client Sample ID	QC Description
920866-053	FW-RM-16-CS-0.7-2.0	
920866-073	FW-RM-16-CS-0.7-2.0MS	Matrix Spike
920866-074	FW-RM-16-CS-0.7-2.0MSD	Matrix Spike Duplicate
920866-054	FW-RM-16-CS-2.0-3.5	
920866-056	FW-RM-06-CS-0.7-2.3	
920866-057	FW-RM-06-CS-2.8-4.7	
920866-058	FW-RM-11-CS-0.7-2.4	
920866-059	FW-RM-11-CS-2.4-4.2	
920866-061	FW-RM-14-CS-0.7-2.0	
920866-062	FW-RM-14-CS-2.0-3.8	
920866-075	MB4920866	Method Blank
920866-076	MB4920866LCS	Laboratory Control Sample
920866-077	MB4920866LCSD	Laboratory Control Sample D

Comments:

Signature: my sl Name: Michael J Helmann
Date: 7/16/02 Title: Wet Chemistry Group Leader

- Analytical Report -

Project Name : ROXANNA MARSH Submitter : FOSTER WHEELER
Project Number : 1980.0208.0100 Report Date : 4/15/2002
Field ID : FW-RM-16-CS-0.7-2.0 Collection Date : 3/21/2002
Lab Sample Number : 920866-053 Matrix Type : SOIL
Lab Project Number : 920866 WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	33	12	mg/kg	N	04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	0.24	0.14	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	34.8		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	100000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	85000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	99000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH Submitter : FOSTER WHEELER
Project Number : 1980.0208.0100 Report Date : 4/15/2002
Field ID : FW-RM-16-CS-2.0-3.5 Collection Date : 3/21/2002
Lab Sample Number : 920866-054 Matrix Type : SOIL
Lab Project Number : 920866 WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	< 8.8	8.8	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.10	0.10	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	48.8		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	68000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	67000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	66000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	72000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	67000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-06-CS-0.7-2.3

Collection Date : 3/21/2002

Lab Sample Number : 920866-056

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	11	8.3	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.097	0.097	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	51.3		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	65000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	67000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	58000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	64000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	70000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-06-CS-2.8-4.7

Collection Date : 3/21/2002

Lab Sample Number : 920866-057

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	< 6.4	6.4	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.074	0.074	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	67.2		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	8200	200	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	6000	200	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	12000	200	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	7900	200	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	7100	200	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-11-CS-0.7-2.4

Collection Date : 3/21/2002

Lab Sample Number : 920866-058

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	< 11	11	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.13	0.13	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	37.9		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	120000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	100000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-11-CS-2.4-4.2

Collection Date : 3/21/2002

Lab Sample Number : 920866-059

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	< 7.4	7.4	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.087	0.087	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	57.4		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	53000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	52000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	54000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	56000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	50000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-14-CS-0.7-2.0

Collection Date : 3/21/2002

Lab Sample Number : 920866-061

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	200	150	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	0.19	0.15	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	32.6		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	130000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	100000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	130000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	130000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	170000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

- Analytical Report -

Project Name : ROXANNA MARSH

Submitter : FOSTER WHEELER

Project Number : 1980.0208.0100

Report Date : 4/15/2002

Field ID : FW-RM-14-CS-2.0-3.8

Collection Date : 3/21/2002

Lab Sample Number : 920866-062

Matrix Type : SOIL

Lab Project Number : 920866

WI DNR LAB ID : 113172950

Inorganic Results

Test	Result	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Acid Volatile Sulfide	< 9.5	9.5	mg/kg		04/05/02	EPA DRAFT	EPA DRAFT
Oil & Grease, total recoverable	< 0.11	0.11	%		04/15/02	SW846 9071A	SW846 9071A
Solids, percent	45.1		%		04/01/02	SM 2540G M	SM 2540G M
TOC average of rep 1-4	65000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 1	58000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 2	66000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 3	67000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060
TOC replicate 4	70000	2000	mg/kg		04/04/02	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.